


# Psychosocial associations of emotion-regulation strategies in young adults residing in the United Arab Emirates

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**Abstract:** The management and expression of emotions can have a positive impact on psychological health and overall functioning. Thus, it is crucial to focus on the study of emotion regulation and the strategies young adults employ to achieve it, namely cognitive reappraisal and expressive suppression, as well as their associations with the long neglected psychosocial factors. The current study aimed at exploring the associations between psychosocial factors and the two emotion-regulation strategies, after controlling for potential sociodemographic confounders. This study used a sample of 136 participants from the Indian subcontinent living in Dubai, United Arab Emirates, aged 18–25 years, who completed instruments measuring social anxiety, social support, and parenting styles (authoritative, authoritarian, permissive) as well as the use of the emotion-regulation strategies of suppression and reappraisal. The results indicated that having experienced authoritarian parenting and perceiving low social support were associated with the use of suppression, while having experienced authoritative parenting and low levels of social anxiety were associated with the use of emotional reappraisal. Our study provides evidence on the importance of psychosocial factors for the use of emotion-regulation strategies and suggests their modification for the promotion of adaptive ways of managing emotions.

**Keywords:** emotion regulation; parenting styles; social anxiety; social support; United Arab Emirates; young adults

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Maladaptive emotions and emotional reactions are a hindrance for healthy adaptive behavior and can have a negative impact on psychological health (Moyal, Henik, & Anholt, 2013), leading to the appearance of psychopathological disorders, such as anxiety and depression (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Because of the evident influences that emotions have on a person's life in all its facets, emotion regulation (i.e., the ways individuals control or balance their emotions) has been widely explored in the literature (Gross, 2013; Schäfer, Naumann, Holmes, Tuschen-Caffier, & Samson, 2017). Researchers have suggested that when emotion-regulation strategies are employed properly they play a pivotal role in the person's well-being (Quoidbach, Berry, Hansenne, & Mikolajczak, 2010) and life satisfaction (Martini & Busseri, 2010). Importantly, this role was showcased by evidence from the

field, where an emotion-regulation intervention was found to be effective, not only for enhancing well-being, but also for protecting against depression, stress, and physical symptoms (Weytens, Luminet, Verhofstadt, & Mikolajczak, 2014).

Emotion regulation acts through the implementation of cognitive and behavioral strategies, which are divided into two categories: those considered beneficial for the person's well-being, such as acceptance of one's emotions, problem-solving, and appraisal; and those considered maladaptive, such as avoidance, suppression, and rumination (see the meta-analyses by Aldao et al., 2010, and Schäfer et al., 2017, for further details). In order to explain how the choice of adaptive or maladaptive strategies leads to different consequences for the person's mental health and well-being, the framework provided by Gross's (2013) information processing model

proposed the contrast between the cognitive strategy of reappraisal and the behavioral strategy of suppression. The use of reappraisal involves a process of cognitive reassessment of the situations, so as for the person to harmonize the produced emotions. Such strategy has proven to be very effective, as individuals most frequently applying it display better well-being and lower depression symptoms when compared to individuals who do not employ this strategy (Gross, 2013). On the other hand, suppression refers to holding back the emotional expression without altering the experience of emotions triggered by a situation (Bebko, Franconeri, Ochsner, & Chiao, 2014; Gross, 2014), which works effectively in emotionally challenging situations. However, repeated use of such strategy can lead to lower emotional control, which is linked to a negative impact on memory, well-being, and social functioning. Moreover, the use of this strategy, as opposed to the use of reappraisal, is connected to the appearance of depressive symptoms (Joormann & Vanderlind, 2014).

Despite the importance of emotion regulation, there is a dearth of research regarding sociodemographic and psychosocial factors that may be associated with the use of the above-mentioned strategies. In relation to sociodemographic characteristics, past research has revealed contradictory results for sex differences in the use of both emotion-regulation strategies (Masumoto, Taishi, & Shiozaki, 2016). When it comes to age, recent findings state that as individuals grow older, they learn what type of behavior and emotional expression is more adaptive for the environment they live in by means of cognitive reappraisal (Monzon, 2016). Importantly, differences are also reported between people with collectivistic versus individualistic cultural origins (Diaz & Eisenberg, 2015). Specifically, people coming from collectivist cultures seem to employ suppression rather than reappraisal, as the expression of personal emotions is not encouraged when aiming to maintain the “group” harmony (Matsumoto, Yoo, & Nakagawa, 2008). People from individualistic cultures, on the other hand, tend to reappraise their emotions, as autonomy and individual harmony are valued and, therefore, expression of emotions is prompted within their society (Matsumoto, 2006).

Going beyond sociodemographic factors, research on emotion regulation has focused on psychological dysfunction, hugely neglecting its interpersonal perspective (Cutuli, 2014). When adopting such perspective, factors such as perceptions of social support, social anxiety as well as the parenting style experienced during childhood seem to be

ideal candidates when exploring the motives behind the use of emotion-regulation strategies.

*Perceived social support* refers to the belief that one's community, family, friends, or any significant other are available for physical or psychological aid at a time of need (Ghorbani, Issazadegan, & Saffarinia, 2012). Importantly, positive perceived social support results in better coping and reappraisal when regulating emotions (Ghorbani et al., 2012) across different cultures (Lee, Suchday, & Wylie-Rosett, 2012). Notably, English, John, Srivastava, and Gross (2012) have suggested the potential existence of an inverse relationship, as they reported that the use of reappraisal at the beginning of college years predicted stronger social connections in young adults 4 years later, whilst the effects of suppression were the opposite.

When focusing on social anxiety, individuals that display symptoms of such phobia have an irrational fear of being involved in social situations, as they feel that they are being observed by others and that they may be publicly humiliated (American Psychiatric Association, 2013). This often stops them from adaptively interacting with others, which may also be due to experiencing physiological symptoms, such as sweating, trembling, and palpitation. Thus, it is not surprising that people suffering from social anxiety make increased use of emotion suppression (Kashdan & Steger, 2014; Miu, Vulturar, Chis, Ungureanu, & Gross, 2013) and decreased use of reappraisal, as they need to use safety behaviors to avoid feeling anxious, therefore they inhibit or suppress the expression of their emotions (Jazaieri, Morrison, Goldin, & Gross, 2015).

Importantly, having experienced a particular parenting style during childhood seems to have distinct significant effects on the use of emotion-regulation strategies, although the relationships between different parenting styles have barely been explored. In the early years of the study of parenting style, Baumrind (1978) identified three typologies of parenting style: authoritative, authoritarian, and permissive. According to his theory, authoritative parenting involves encouragement of independence and high expectations of achievement, providing at the same time warmth and emotional responsiveness towards the child. Permissive parenting, on the other hand, involves low parental control, high tolerance of misbehavior, and moderate emotional responsiveness (Jabeen, Anis-ul-Haque, & Naveed Riaz, 2013). Finally, authoritarian parenting involves high parental control and low emotional responsiveness. Encouraging parenting styles, such as the authoritative style, seem to have a

positive effect on emotion regulation, whereas authoritarian and permissive parenting seem to be detrimental (Diaz & Eisenberg, 2015; Jabeen et al., 2013). Specifically, when it comes to the use of specific emotion-regulation strategies, people who have experienced permissive or authoritarian parenting when they were children seem to have a preference for suppression (Jaffe, Gullone, & Hughes, 2010; Monzon, 2016). On the contrary, those who have experienced authoritative parenting prefer the more beneficial use of cognitive reappraisal (Jaffe et al., 2010; Karim, Sharafat, & Mahmud, 2014).

Based on the above, although achieving emotional balance is vital, there is a scarcity of studies exploring the psychosocial elements behind the person's tendency for using reappraisal or suppression as a means of achieving emotion regulation. Thus, the present study aims to explore whether social support, social anxiety, and parenting styles are associated with the use of one or the other strategy when controlling for potential confounders, such as age and sex. In line with previous research, it is expected that perceiving lack of support together with displaying high levels of social anxiety and having experienced permissive or authoritarian parenting will be associated with the use of a less functional regulation strategy (i.e., emotion suppression); whilst perceiving social support, displaying low levels of social anxiety, and having experienced an authoritative parenting style will be associated with the use of more beneficial strategies (i.e., emotional reappraisal). Our study focuses on young people aged 18–25 years, as this is a crucial age for acquiring functional strategies for the management of emotions (Gross, 2015). Shedding light on the factors that might be associated with young people's use of a particular strategy may contribute to the development of specific programs for the emotional education of youth, in order to teach them how to effectively manage their emotional life.

## Methods

### Design

The study is cross-sectional using a correlational design. The outcome variables are the emotion-regulation strategies of suppression and reappraisal. The independent variables consist of sociodemographic (sex, age) and psychosocial (perceived social support, social anxiety, and experienced

parenting styles [authoritative, authoritarian, and permissive]) factors.

### Participants

The sample consisted of 136 participants (32.2% male, 67.7% female; aged 18–25 years). Participants were from the Indian subcontinent (India, Pakistan, and Bangladesh) and were residing in the United Arab Emirates. All of them had English as their first or second language. They were recruited using an opportunistic sampling technique from the Knowledge Park premises in Dubai, United Arab Emirates, with a possible snowball effect, as participants may have encouraged their peers to also take part in the study. The sample had an excellent response rate of 93.3%.

### Materials and variables

#### *Sociodemographic variables*

A sociodemographic questionnaire was administered to collect information on the participant's age (in years) and sex.

#### *Emotion regulation*

The Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) was used to assess the use of two strategies for emotion regulation: expressive suppression and cognitive reappraisal. The ERQ comprises of 10 items rated on a 7-point Likert type scale. Six of the questions measure reappraisal, while the remaining four measure suppression. Higher scores on each subscale indicate higher use of this emotion-regulation strategy. The ERQ has been found to be both reliable and valid (Gross & John, 2003). In the present study, an acceptable internal consistency was found for the ERQ with a Cronbach's alpha of .78.

#### *Social support*

The Multidimensional Scale of Perceived Social Support (MSPSS) was used to assess social support (Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS is a 12-item scale measuring responses on a 7-point Likert scale where higher scores indicate higher perception of social support. The scale has been found to have high validity and internal consistency, has been used across different studies, and has been translated into different languages. The scale's reliability was found to be high (Cronbach's alpha = .92).

### Social anxiety

The Social Interaction Anxiety Scale Short Form (SIAS-6; Peters, Sunderland, Andrews, Rapee, & Mattick, 2012) was used to assess the levels of social anxiety. It is a 6-item scale rated on a 5-point Likert type scale from 0 to 4. Higher scores indicate higher levels of social interaction anxiety. The scale was found to have an acceptable internal consistency with a Cronbach's alpha of .79.

### Parenting styles

Parenting styles were assessed using the Parental Authority Questionnaire (PAQ) by Buri (1991). The PAQ comprises of 30 items rated on a 5-point Likert scale from 1 to 5. The instrument has three subscales for individual parenting styles: Authoritative, Authoritarian, and Permissive, with high scores in each subscale indicating a high perception of such parenting style. The questionnaire has high discriminatory validity in terms of the three parenting styles; it has been translated into several languages (Buri, 1991), and was found to have an acceptable internal consistency with a Cronbach's alpha of .78.

### Procedure

Upon receiving approval by the Ethics Committee of an offshore British university in Dubai, United Arab Emirates, the participants were approached in the Knowledge Park Premises (Dubai, United Arab Emirates), were given the information sheet of the study, and were asked to participate voluntarily. If they accepted, they were informed about their ability to withdraw from the study at any time and told that the information would be anonymous. They all signed the consent forms and then were asked to complete the set of questionnaires, which took about 15 to 20 min.

Upon completion, participants were debriefed and thanked for their participation.

### Data analyses

The data were analyzed using SPSS, Version 24. Descriptive analyses were performed to examine the sociodemographic characteristics of the sample as well as the levels of the emotion suppression and reappraisal, social support, social anxiety, and parenting styles. First, we performed correlation analyses to check the relationships of age, sex, perceived social support, social anxiety, and the three parenting styles (authoritative, authoritarian, and permissive) with the two emotion-regulation strategies of suppression and reappraisal (see supplementary Table 1). Second, two multiple regression analyses were performed for suppression and reappraisal separately, where factors that showed a significant correlation with each of them were entered into the models as the independent variables. Missing values for data were less than 4%.

## Results

### Sample characteristics

Results on the sample characteristics as well as their levels of emotion regulation and their social characteristics can be seen in Table 1.

### Factors associated with emotion suppression

When examining potential cross-sectional determinants of the use of emotion suppression, results showed that perceiving an authoritarian style of parenting together with lower levels of social support was associated with higher use of such emotion-regulation strategy,  $F(2, 124) = 12.13$ ,

**Table 1**  
*Sociodemographic and Psychosocial Characteristics of the Sample*

Factor		N (%)	M	SD
Sociodemographic characteristics		136		
Sex	Male	41 (30.1%)		
	Female	95 (69.9%)		
Age (years)			20.63	2.98
Emotion-regulation strategies	Reappraisal		28.80	6.77
	Suppression		16.51	4.52
Psychosocial characteristics	Social support		63.94	13.57
	Social anxiety		6.54	4.63
	Parenting styles	Authoritative	34.30	6.72
		Authoritarian	32.05	6.79
		Permissive	28.84	6.46

$p < .001$ . The model accounted for the 16.4% of the emotion suppression variance (for details see Table 2).

### Factors associated with emotional reappraisal

On the other hand, perceiving an authoritative style of parenting together with lower levels of social anxiety were associated with higher use of emotional reappraisal,  $F(2, 125) = 6.71$ ,  $p = .002$ , and the model accounted for 9.7% of the variance. None of the rest of the examined factors was found to be associated with the use of such strategy (Table 2).

## Discussion

The current study aimed to explore whether social support, parenting styles, and social anxiety are associated with the use of suppression and reappraisal as emotion-regulation strategies, whilst looking into other possible confounding factors, such as age and sex. Research exploring the associations of various social factors with emotion-regulation strategies is limited, calling for studies like the present, which was carried out with young people living in a multicultural environment.

Our results indicated that lack of social support and authoritarian parenting style are associated with the use of suppression as a strategy of regulating emotional experience, partially confirming our hypothesis. As expected, social support was found to be associated with the reduced use of emotion suppression as a strategy for regulating emotional experiences. Indeed, adequate social support is linked to buffering and regulating negative emotions (Niven, Macdonald, & Holman, 2012). When individuals have to deal with a negative life event, turning to a

significant other to share their experience can help with alleviating negative emotions, which then reduces the need for emotion suppression (Niven et al., 2012).

Importantly, our results showed that having experienced authoritarian parenting had a stronger association with the possibility of using the dysfunctional strategy of suppression for regulating emotional experiences, which is in line with previous research (Jaffe et al., 2010). When an authoritarian parenting style is employed, parents tend to express negative emotions to the child, inhibiting at the same time any manifestation of positive appraisal and employing a cold and firm approach towards them (Halberstadt, Crisp, & Eaton, 1999). Therefore, there is a high probability that after having been raised in such an environment, the strategy of avoiding any emotional expression through suppression would seem effective for the maintenance of emotional balance for the young adults of our sample. In addition, the disproportionate level of control that parents might apply to young adults through such a parenting style may be perceived as an inhibitor in their emotional development. Indeed, it is expected that young adults will gradually achieve emotional independence from their parents, something that is particularly valued in Western cultures. Receiving disproportionate parental control instead of support in their way towards such independence may be favoring dysfunctional emotion-regulation strategies, such as the suppression of emotions (Manzeske & Stright, 2009). Remarkably, our results were contrary to those of a study conducted in Pakistan, which indicated the absence of a link between authoritarian parenting and emotion regulation (Jabeen et al., 2013), which could possibly be explained by the discrepancies in the sample characteristics, such as the place of residence. Jabeen et al. (2013) examined participants possibly conforming to collectivistic rules, where authoritarian parenting would seem the norm and would not be an obstacle to the development of emotion-regulation strategies. However, young adults in our sample, albeit coming from countries traditionally considered collectivistic, do not experience their adulthood development in the societal context of their origin and may have adopted more individualistic patterns of behavior and emotional processing, consistent with the values from the Western world.

Notably, our results did not support a relationship between experiencing permissive parenting and applying emotion suppression (Monzon, 2016). We would expect that young people who experience a lack of parenting

**Table 2**

*Multivariate Associations Between Sociodemographic and Psychosocial Factors and Emotion-Regulation Strategies*

Emotion-regulation strategy	Associated factors	Coefficients		
		$\beta$	$t$	$p$
$N = 127$	Model fit			
	$R^2 = .164$			
Suppression	Social support	-.079	-2.831	.005*
	Authoritarian style	.190	3.417	.001*
Appraisal	Model fit			
	$R^2 = .097$			
	Authoritative style	.239	2.747	.007*
	Social anxiety	-.296	-2.335	.021*

\* Significant at the .05 level.

guidance towards their emotional development would tend to apply more dysfunctional emotion-regulation strategies, such as suppression. However, this was not the case for people in our sample, perhaps due to the predominant existence of the other parenting styles experienced by our participants. Future research should delve further into this association, as it has been barely explored in the literature.

Similarly, contrary to our expectations, social anxiety symptoms were not related to the use of suppression as reported previously (Kashdan & Steger, 2014). It has been suggested that people with social anxiety tend to suppress positive emotions, as they find them uncomfortable, and in this way minimize the potential social attention that they would receive when expressing them. In our study, no distinction between positive and negative emotions was made when examining suppression as in previous research (Farmer & Kashdan, 2012), which may offer a plausible interpretation for the absence of association found in our sample.

On the other hand and in line with our hypotheses, social anxiety displayed a negative association with reappraisal. People with high levels of social anxiety make less use of adaptive emotion-regulation strategies, such as reappraisal, as when confronted with challenging social situations they experience difficulties in reevaluating the cognitive and emotional responses generated before, during, and after the situation (Ziv, Goldin, Jazaieri, Hahn, & Gross, 2013).

Our findings also indicate an association of reappraisal with authoritative parenting, as expected (Karim et al., 2014). Although research into the association between parenting styles and emotion regulation is scarce, evidence from the field of emotional intelligence consistently supports the connection between the experience of authoritative parenting and the application of functional emotion regulation (see Argyriou, Bakoyannis, & Tantaros, 2016, for an analysis). Authoritative parenting is characterized by the encouragement of independence and self-regulation of children and at the same time being emotionally available as parents (Grolnick & Pomerantz, 2009). These characteristics could explain why the young adults in our sample who grew up under such circumstances make use of a strategy that involves regulation of their emotions through their own reevaluation of the situation experienced, thus achieving emotional balance through a functional strategy, as opposed to dysfunctional suppression.

Despite the low amount of variance explained with regards to the use of both emotion-regulation strategies

explored, the contribution of the present study is substantial, as it provides a novel, long-neglected perspective on emotion regulation, by shifting the focus from personal to social variables to explain its strategies. Given that the individual is social by nature and in constant interaction with their environment, it is crucial to delve into social factors to explain how a person manages their emotional life, going beyond personal characteristics. Finally, given the cross-sectional nature of our study, it is not possible to establish conclusions regarding causal mechanisms of emotion regulation, providing only indications on elements to explore further. Similarly, the use of self-report questionnaires cannot exclude the potential effects of social desirability, leading to biased answers in our sample. Further use of in-depth interviews can account for such limitation, providing an extensive examination of emotion-regulation predictors. In addition, expanding the findings regarding social support, relationship satisfaction may be a more adequate candidate for explaining the use of emotion-regulation strategies, as dealing with emotions with a significant other can have an impact on the strategies a person employs to manage their own emotions (Ghorbani et al., 2012; Gross, 2013).

Our results suggest the potential need to enhance the educational context with psychosocial interventions for individuals at the beginning of their adult life. Such interventions should aim at empowering social support to reduce the use of suppression and promote the use of reappraisal as a healthy strategy for achieving emotional balance, buffering at the same time the effect of maladaptive or damaging parenting. Finally, yet importantly, it is crucial to educate parents in the employment of effective parenting styles, with the ultimate end of achieving an emotional balance for future generations, so as to make healthy young adults.

### Disclosure of conflict of interest

The authors declare that there are no conflicts of interest.

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### Supporting information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site: <http://onlinelibrary.wiley.com/doi/supinfo>.

**Table S1** Pearson Correlations Between Psychosocial Factors and Emotion-Regulation Strategies